## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Ştylesheet Version v18.0

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Title of Invention Timed Delay for Redelivery of Treatment Therapy for a Medical Device System

Application Number:

10/687567

Confirmation Number:

7143

First Named Applicant:

Mark Frei

Attorney Docket Number: 011738.00135

Art Unit:

3736

Examiner:

Unassigned Unassigned

Search string:

( 5318591 or 5458619 or 6167308 or 4974589

or 20020038137 ).pn.

Certification: This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure

## **US Patent Documents**

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

			a con alca	nt Docur	nents	
init Cite.No.	Patent No.	Date	Patentee	)		
FK 1	5318591	1994-06-07	Causey, III	Kind	Class	Subclass
FK 2	5458619	1995-10-17	Olson			
FK 4	6167308	2000-12-26	DeGroot			
<u> </u>	4974589	1990-12-04	Sholder			1
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## **US Published Applications**

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APP_ID=10687567			•			1

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet of 2

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TOTAL TRANS

Complete if Known					
Application Number	10/687,567				
Filing Date	October 15, 2003				
First Named Inventor	Mark Frei				
Art Unit	3736				
Examiner Name	Not assigned				
Attorney Docket Number	011738.00135				

	U.S. PATENT DOCUMENTS						
Examiner tnitials *	Cite No.	Document Number  Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Retevant Passages or Relevant		
FK	<b>}</b>	US-6,366,814	04/02/2002	Boveja, et al.	Figures Appear		
1	<b>†</b>	US- 6,587,727	07/01/2003	Osorio, et al.			
1/	1	US- 5,597,954	07/22/2003	Pless, et al.			
$-\mathbf{A}$		US- 6,609,030	08/19/2003	Rezai, et al.			
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	FOREIGN PATENT DOCUMENTS							
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Examiner Signature	Filip Kowalewski/	(09/13/2006) Date Considered	

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	Substitute	for form 144	9B/PTO		·		Complete if Known	
	INFO	DRA A TI	ONE	VIC.	CLOCUDE	Application Number	10/687,567	
					CLOSURE	Filing Date	October 15, 2003	
	STATEMENT BY APPLICANT				PPLICANT	First Named Inventor	Mark Frei	
						Art Unit	3736	
		(Use as ma	ny sheet	s as i	necessary)	Examiner Name	Not assigned	
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		NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
FK		PCT International Search Report					
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	Complete if Known	
Application Number	10/687,567	
Filing Date	October 15, 2003	
First Named Inventor	Mark G. Frei	
Art Unit	3736	
Examiner Name	TBD	
Attorney Docket Number	011738.00135	

			U.S. PATENT D	OCUMENTS	
Examiner Cite No.'		Document Number  Number - Kind Code <sup>2</sup> (if known)	Issue/Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevar Passages or Relevant Figures Appear
FK		US-·3522811	08/04/1970	Schwartz et al.	
		US- 3850161	11/26/1974	Saul Liss	
		US- 3863625	02/04/1975	Viglione et al.	
		US- 3967616	07/08/1976	Sidney A. Ross	
		US- 3993046	11/23/1976	Fernandez et al.	
		US- 4019518	04/26/1977	Maurer et al.	
		US- 4038538	07/26/1977	Paul L. Feintuch	
		US- 4295474	10/20/1981	Robert E. Fischell	
		US- 4373527	2/15/1983	Robert E. Fischell	
1		US- 4417592	11/29/1983	John E. Roy	
		US- 4566464	01/28/1986	Piconne et al.	
		US- 4581758	04/08/1986	Coker et al.	
1		US- 4610259	09/09/1986	Cohen et al.	
		US- 4702254	10/27/1987	Jacob Zabara	
		US- 4944299	07/31/1990	Sergiu Sulvian	
1	1	US- 5311869	05/19/1992	Nappholz et al.	
1	i –	US- 5269303	12/14/1993	Wernicke et al.	
1		US- 5299569	04/05/1994	Wemicke et al.	
1		US- 5311876	05/17/1994	Olsen et al.	
		US- 5335657	08/09/1994	Terry Jr. et al.	
		US- 6473639	10/24/2002	Fischell et al.	
		US- 6480743	11/12/2002	Kirkpatrick et al.	
1		US- 6560488	05/06/2003	Osorio et al.	
T		US- 6591138	07/08/2003	Ficshell et al.	
		US- 6597954	07/22/03	Pless et al.	
		US- 6647296	11/11/2003	Fischell et al.	
$\Psi^-$		US- 2002/0013614	01/31/2002	David L. Thompson	

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Examiner /: Signature /:	Filip Kowalewski/	(09/13/2006)	Date Considered	

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Substitut	e for form 1449A/PT	то		Complete if Known		
				Application Number	10/687,567	
INFO	PRMATION	I DIS	CLOSURE	Filing Date	October 15, 2003	
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Mark G. Frei	
				Art Unit	3736	
	(Use as many si	heets as	necessary)	Examiner Name	TBD	
Sheet	2	of	4	Attorney Docket Number	011738.00135	

	,		U.S. PATENT			
Examiner Cite No.1		Document Number  Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant	
1312		1			Figures Appear	
FK		US- 5487754	01/30/1998	Snell et al.		
	<u> </u>	US- 5626145	05/08/1997	Clapp et al.		
	<b> </b>	US- 5883422	11/04/1997	Mark T. Rise		
		US- 5713922	02/03/1998	Gary William King		
	<u> </u>	US- 5713923	02/03/1998	Ward et al.		
		US -5716377	02/10/1998	Rise et al.		
		US- 5720770	02/24/1998	Nappholz et al.		
		US- 5743860	04/28/1998	Hively et al.		
		US- 5752976	05/19/1998	Duffin et al.		
		US- 5792186	08/11/1998	Mark T. Rise		
	$\Gamma$	US- 5978702	11/02/1999	Ward et al.		
		US- 5995868	11/30/1999	Dorfmeister et al.		
		US- 6016449	01/18/2000	Fischell et al.		
	1	US- 6018682	01/25/2000	Mark T, Rise		
	1	US- 6066163	05/23/2000	Michael Sasha John		
		US- 6083248	07/04/2000	David L. Thompson		
	T	US- 6094598	7/25/2000	Elsberry et al.		
		US- 6117066	09/12/2000	Abrams et al.		
		US- 6128537	10/03/2000	Mark T. Rise		
		US- 6128538	10/03/2000	Fischell et al.		
		US- 6134474	10/17/2000	Fischell et al.		
1		US-6200265	03/13/2001	Walsh et al.		
+-	1	US- 6224549	05/01/2001	Win Van Drongelen		
	1	US- 6227203	05/08/2001	Rise et al.		
_	<del>                                     </del>	US- 6230049	05/08/2001	Fischell et al.		
+		US- 6337997	01/08/2002	Mark T, Rise		
+		US- 6341238	01/22/2002	Osorio et al.		
	<del>                                     </del>	US- 6353754	03/05/2002	Fischell et al.		
+-	<del>                                     </del>	US- 6356784	03/12/2002	Lozano et al.		
+-	<del>                                     </del>	US- 6360122	03/19/2002	Fischell et al.		
		US- 6366813	04/02/2002	Daniel J. Di Lorenzo		
	1	US- 6374140	04/16/2002	Mark T. Rise		
+	<del>                                     </del>	US- 6427086	07/30/2002	Fischell et al.		
	<del>                                     </del>	US- 6459936	10/01/2002	Fischell et al.		
	····	US- 6466822	10/15/2002	Benjamin D. Pless		
₩	1	US- 6473639	10/24/2002	Fischell et al.		

Examiner Signature	/Filip Kowalewski/	(09/13/2006 Date 6 Considered	

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Substitute for form 1449B/PTO Complete if Known Application Number 10/687,567 INFORMATION DISCLOSURE Filing Date October 15, 2003 STATEMENT BY APPLICANT First Named Inventor Mark G. Frei Art Unit 3736 (Use as many sheets as necessary) Examiner Name **TBD** Sheet of 4 Attorney Docket Number 011738.00135

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
FK		Alan V. Oppenheim & Ronald W. Schafer, Digital Signal Processing, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pg. 18-24. 1975.	
		Gotman J., & Gloor, P., "Automatic Recognition and Quantification of Linterictal Epileptic Activity in the Human Scalp EEG", Electroencephalography and Clinical Neurophysiology, 41:513-529. 1976.	
		B. Litt and J. Echauz, "Prediction of Epileptic Seizures", 1 The Lancet Neurology 22 May 2002.	
		H. Qu & J. Gotman, "A Seizure Warning System For Long-term Epilepsy Monitoring", 45 Neurology 2250, 1995.	
		J. Gotman, "Automatic Recognition of Epileptic Seizures in the EEG", 54 Electroencephalography and Clinical Neurophysiology at 530-540, 1982.	
		Lapkin et al., "The Electroencephalogram in Childhood Basilar Artery Migraine", 27Neurology 580-583, June 1977.	
		Murro et al., "Computerized Seizure Detection of Complex Partial Seizures", 79 Electroencephalography and Clinical Neurophysiology 330-333, 1991.	
		P. Rajna and C. Lona, "Sensory Stimulation for Inhibition of Epileptic Seizures", 30(2) Epilepsia 168-174, 1989.	
		R.P. Lesser et al., "Brief Bursts of Pulse Stimulation Terminate Afterdischarges Caused by Cortical Stimulation", Neurology 53, December 1999.	
		Webber, W.R.S. et al., "Automatic EEG Spike Detection: What Should the Computer Imitate", 87 Electroencephalography and Clinical Neurophysiology 330-333, 1993.	
$\Psi$		Grassberger, Peter et al., "Characterization of Strange Attractors" Vol. 50, No.5., The American Physical Society, January 31, 1983.	

Examiner Signature	Filip Kowalewski/ (	(09/13/2006) Date Considered	
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			CLOSURE	Filing Date	October 15, 2003	
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FK		lasemidis, L. D. and Sackellares, J. C. "Chaos Theory and Epilepsy". The Neuroscientist, 2:118–126, 1996. <a href="retrieved from http://citeseer.ist.psu.edu/iasemidis96chaos.html">retrieved from http://citeseer.ist.psu.edu/iasemidis96chaos.html</a>	
		Elger, Christian E., et al., "Short Communication: Seizure Prediction By Non- Linear Time Series Analysis of Brain Electrical Activity" European Journal of Neuroscience, Vol. 10, pgs. 786-789 (1998)	
		Gotman, J., "Seizure Recognition and Analysis", Montreal Neurological Institute and Deartment of Neurology and Neurosurgery, McGill University, Montreal, Quebec. H3A 2B4 (Canada)	
		Vachtsevanos, G.J., et al. "Neuro-Fuzzy Approaches to Decision Making: A Comparative Study With An Application to Check Authorization" Journal of Intelligent and Fuzzy Systems, Vol. 6, pgs. 259-278 (1998)	
$\sqrt{}$		Osorio, Ivan, et al., "Real-Time Automated Detection and Quantitative Analysis of Seizures and Short-Term Prediction of Clinical Onset" Epilepsia, Vol. 39(6) pgs. 615-627, (1998)	
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Examiner /Filip Kowalewski/ (09/13/200	6 Date Considered
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